Appl. No. 10/709,099
Amdt. dated August 16, 2006
Reply to Office action of May 17, 2006

Amendments to the Specification:

Applicant is submitting herewith a marked-up copy of the specification showing the amendments made herein for typographical errors.

5   Please replace paragraph [0020] with the following amended paragraph:

For each state, each of 5 survivor metrics respectively output from the state shift register 206 is multiplied by a respective coefficient: C_{A0} to C_{A4} for each cell in the first state shift register 206, C_{B0} to C_{B4} for each cell in the second state shift register 206, ... ,

10   and C_{H0} to C_{H4} for each cell in the eighth state shift register 206. Meanwhile, each of the 9 survivor metrics output [[form]] _from_ the single shift register 208 is multiplied by a respective coefficient C_5 to C_{13} and the results of the single shift register 208 multiplications are summed to form an intermediate value _Inter_. The results of each of the state shift register 206 multiplications are summed together with the intermediate value

15   _Inter_ calculated according to the single shift register 208. In this way, an ISI value for each state (out[0] to out[7], for each of the eight states, respectively) is formed by five-taps being unique to the state and nine taps being common to all the states. The results of the summing operations (out[0] to out[7]) for each set 104 are output back to the 1D-BMUs 116, 118, 120, 122 as output signals 108, 110, 112, and 114, respectively,

20   and allow postcursor ISI to be removed. It is to be noted that the distribution of number of taps between the state shift registers and the single shift register is a design choice, and is not meant to serve as limitation.

Please replace paragraph [0021] with the following amended paragraph:

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Fig.2 is a block diagram detailing the implementation of a first embodiment decision device 300 for use as the decision device 210 of Fig.1. The first decision device 300 compares the survivor metrics at the outputs T_0, T_1, T_2, T_3, T_4, T_5, T_6, T_7 of the state shift

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registers 206 shown in Fig.1. The decision device 300 chooses a survivor metric [[312]] 212 according to the survivor metrics at the last taps (i.e. the 5th taps) of the state shift registers 206. In this embodiment, the chosen survivor metric [[312]] 212 outputted by the first decision device 300 is the survivor metric being present at the greatest number of

5   outputs T_0, T_1, T_2, T_3, T_4, T_5, T_6, T_7 of the state shift registers 206. For example, if a particular survivor metric is received on outputs T_0, T_1, T_3, T_4, T_6, and T_7, this particular survivor metric has the most likelihood among others, is considered the most possible convergence, and is therefore chosen.

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